Spring 2019

Challenging Gifted Students in the General Education Classroom

Kelly Barnett
Elizabethtown College, barnettk@etown.edu

Challenging Gifted Students in the General Education Classroom

Kelly Barnett

Elizabethtown College

This thesis is submitted in partial fulfillment of the requirements for Honors in the Discipline in Education and the Elizabethtown College Honors Program.

May 1, 2019

Thesis Advisor: _____

THE HIGH LIBRARY
ELIZABETHTOWN COLLEGE

Honors Senior Thesis
Release Agreement Form

The High Library supports the preservation and dissemination of all papers and projects completed as part of the requirements for the Elizabethtown College Honors Program (Honors Senior Thesis). Your signature on the following form confirms your authorship of this work and your permission for the High Library to make this work available. By agreeing to make it available, you are also agreeing to have this work included in the institutional repository, JayScholar. If you partnered with others in the creation of this work, your signature also confirms that you have obtained their permission to make this work available.

Should any concerns arise regarding making this work available, faculty advisors may contact the Director of the High Library to discuss the available options.

Release Agreement
I, as the author of this work, do hereby grant to Elizabethtown College and the High Library a non-exclusive worldwide license to reproduce and distribute my project, in whole or in part, in all forms of media, including but not limited to electronic media, now or hereafter known, subject to the following terms and conditions:

Copyright
No copyrights are transferred by this agreement, so I, as the author, retain all rights to the work, including but not limited to the right to use in future works (such as articles or books). With this submission, I represent that any third-party content included in the project has been used with permission from the copyright holder(s) or falls within fair use under United States copyright law (http://www.copyright.gov/title17/92chap1.html#107).

Access and Use
The work will be preserved and made available for educational purposes only. Signing this document does not endorse or authorize the commercial use of the content. I do not, however, hold Elizabethtown College or the High Library responsible for third party use of this content.

Term
This agreement will remain in effect unless permission is withdrawn by the author via written request to the High Library.

Signature: Kelly Barnett **Date:** 5/1/19

Introduction

Like all students, gifted students deserve the right to a challenging and valuable education. Gifted students are defined as students who show evidence of high achievement in multiple capacities (U.S. Department of Education). Because of this high achievement, gifted students may find that the work given to them as a part of general education curriculum is not intellectually stimulating (Siegle & McCoach, 2018). The learning opportunities that teachers create for the class may not present a challenge or opportunities for growth for many gifted students. As a result, gifted learners often find that regular classroom time is unproductive (Siegle & McCoach, 2018). When presented with content that is not challenging enough, gifted learners commonly express boredom (Redenius & Skaar, 2017). To these students, lack of challenge and boredom become associated with one another (Siegle & McCoach, 2018). Some students even complain that school is a "crushing bore" (Gallagher, 1997). Learning can be an enjoyable task for students and no student, especially a gifted student, wishes to be bored in school (Siegle & McCoach, 2018). As compared to their non-gifted peers, gifted students report even higher levels of boredom due to lack of challenge (Preckel, Gotz, & Frenzel, 2010). Gifted students complain that school moves at too slow a pace, includes too much repetition of long mastered information, focuses on the memorization of facts instead of the development of thinking skills, and presents a lack of opportunity to move on or explore concepts past the regular curriculum (Gallagher, 1997). For some students, boredom even creates cycles of frustration which mirror those that lower level students face when work is too difficult (Cohen, 1990). Students may even feel as though they are being punished by being forced to complete mind-numbing assignments about topics they have mastered long ago (Delise, 2018). When presented with these limiting learning opportunities, students tend to take on unproductive roles.

One such role is that of the distracting student who finishes his/her work then distracts others who have not yet completed their work. The other role is that of the student who finishes everything and waits patiently but is then learning nothing while waiting for the rest of the class (Redenius & Skaar, 2017). Redenius and Skaar (2017) explain that situations such as this lead to classroom management issues for teachers. In addition, both theoretical and empirical evidence shows that boredom results in negative impacts to motivation, self-regulation for learning, and achievement outcomes (Preckel et al., 2010). Gifted students who suffer from boredom often face problems in the classroom and even present new issues for teachers that might not occur if they were appropriately challenged.

Not being given coursework that meets their educational level results in gifted students feeling disconnected from their peers and causes some students to act out and cause trouble (Gallagher, 1997). Students may not even try to complete activities or do what they are asked because they feel that they are being given work they believe is beneath their intellectual level or because they are asked to complete basic work just for a good grade (Delise, 2018). Many gifted students especially end up feeling disconnected during group work. For example, when other students in the group do not put forth equal effort or lack understanding of the content, students who are gifted feel as though they must do all the work for the group and end up disengaging from the learning process (Gallagher, 1997). From group work experiences such as these, gifted students tend to dissociate from classmates whose knowledge base is lower than theirs, and they can even begin to tune out most class activities and lessons (Delise, 2018).

Additionally, students who are not pushed are at risk for dropping out of school (Ritchotte & Graefe, 2017). While many people may not even consider that academically advanced students are at risk of dropping out, Ritchotte & Graeffe (2017) estimate that “gifted

and talented students may compromise up to five percent of the high school dropout rate in this nation" (p. 276). In a survey for the Gates Foundation, out of 467 high school dropouts, nearly half cited boredom as their reason for leaving school (Delise, 2018). With such a high number of gifted students feeling bored in school due to a lack of challenge, the possibility that gifted students may have something in common with dropout students becomes a reality. This is concerning to stakeholders in education for all grades because the process that leads to dropping out begins as early as elementary school when students start to notice a lack of challenge (Ritchotte & Graefe, 2017). Elementary students can then find themselves unable to get back on track with appropriate and challenging learning. When conflicts between teacher and student arise in these cases, it is not uncommon for the student to shut down altogether (Delise, 2018). These situations can result in gifted students sinking as low as to drop out of school.

Not all gifted students who struggle to find appropriate challenges will end up struggling so much that they drop out. Some students will spend their entire school career filled with a lack of motivation and underachievement as a result of not being challenged in elementary school (Ritchotte & Graefe, 2017). A gifted student who is placed in an environment where he/she is not challenged may feel unmotivated or even underachieve as a result (Tirri & Laine, 2017). Without consistent academic challenge as a part of the classroom environment, gifted students become less motivated to succeed in their general education classrooms (Chapman, 2009). One study found that parents view many general education classroom practices as barriers to children's academic motivation. The study also found that a poor classroom environment that did not support gifted students' learning needs led to motivation issues (Siegle & McCoach, 2018). For example, if students do not find the classroom material interesting or meaningful, they are at risk of losing motivation to work hard (Brigandi, Siegle, Weiner, Gubbins & Little, 2016). This is in

part due to the fact that a lack of challenge can lead to poor work habits. If students do not ever practice working hard to meet high expectations for learning, they will not gain the necessary skills to form productive work habits (Siegle & McCoach, 2018). Gifted students are at a higher risk of developing negative behaviors and attitudes such as these. For example, they may struggle to persevere through difficult content when it is finally presented to them (Brigandi et al., 2016). These struggles are not examples of students choosing to place less effort toward school, but rather involuntary responses to the situations presented. Without adequate opportunities to develop talents, students end up underachieving by default (Siegle & McCoach, 2018). Students must receive a challenging education to gain the necessary skills to combat underachievement and loss of motivation.

Possibly the most serious issue that results from gifted students not receiving a challenging education is the concept that these students are not being pushed to reach their potentials. As reported from *A Nation at Risk,* more than half of identified gifted students did not match their tested ability through school performance (Delise, 2018). Often, once students understand the material, teachers stop focusing on those students and move on to helping others. This practice is a huge disservice to gifted students, who typically understand the basic material immediately or quickly (Redenius & Skaar, 2017). In cases like this, the classroom actually may become a place where gifted students cannot excel (Hertberg-Davis, 2009). Redenius & Skaar (2017) explain that “this needs to change soon because we are well on our way to cheating our best students and brightest hopes for the future out of a quality education” (p. 38). Although teachers may try to support gifted learners by providing praise for their achievements, without also giving students opportunities for challenges and enrichment, teachers may be hindering students from achieving all of which they are capable (Tirri & Laine, 2017). One skill that gifted

students tend to miss out on is to set goals for learning new things. Since general classroom experiences often focus on material gifted students have already mastered, gifted students have limited opportunities to have to learn brand new skills in a classroom setting (Little, 2012). In addition, classroom teachers may assume that students will do well without being pushed, but without a challenging education, gifted students may not feel confident in their abilities to excel. This can be easy to miss when students keep up appearances and succeed in school. In the case of one student who "played the school game well", although he appeared to be getting a quality education all through his schooling, he revealed that he felt unprepared for college (Delise, 2018). In addition, research shows that challenging educational opportunities benefit gifted students academically, socially, and psychologically (Lee, Olszewski-Kubilius, Makel & Putallaz, 2015). Not only will students receive academic benefits to being challenged, but they will also gain important social and psychological competencies. Underachievement and low standards limit students' life goals and self-actualization (Siegle & McCoach, 2018). Teachers want students to be their best selves and have opportunities to reach their goals, but not all students, nor all gifted students, need to be pushed to do revolutionary things. However, when teachers challenge students with new learning opportunities, they are allowing students to lead happier, more full lives (Siegle & McCoach, 2018) and all students deserve this opportunity.

The consequences of not meeting the needs of gifted students extend beyond gifted students as individuals and reach to society as a whole. Siegle and McCoach (2018) point out that underachievement in our brightest students represents a loss to society as a whole. With the ever-increasing competitive nature of student achievement levels and a push for schools to produce students at the top, it is in our nation's best interest to develop gifted students who are prepared for a competitive and global workforce. Students need to be prepared to compete and

function within the greater society (Siegle & McCoach, 2018). One way in which students should be prepared is with the necessary skills to engage in learning tasks of the twenty-first century (Tirri & Laine, 2017). These tasks require skills that extend beyond traditional knowledge of facts and concepts and into problem solving and communication strategies, which is why gifted students need to be pushed to develop such skills. Preparing students with these skills will prepare students on a global level (Tirri & Laine, 2017). Having students who are ready to succeed on a global level and who have recognized and developed their talents will provide huge benefits for our nation and for humanity (Siegle & McCoach, 2018). These immeasurable accomplishments begin with providing all students, especially gifted students with appropriate challenges in education.

Literature Review

Inadequate Existing Gifted Programs

Currently, school districts and community organizations have a variety of different approaches for providing enrichment to their gifted students. The federal definition of "gifted and talented" is "students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities" (U.S. Department of Education). Accommodating for these students is not easy, but is required, even in the description of what defines these students.

Most public schools offer a pull-out program as their form of gifted services in which students participate to receive enrichment. During this type of enrichment, students are pulled out of their regular mixed ability classroom to meet with a gifted education teacher and learn in a

classroom with other gifted students (Borland, 2012). Although it is useful and perhaps even necessary for gifted students to have the chance to learn in a class with all other gifted students, going to a gifted classroom does not completely fulfil students' needs (Cohen, 1990). In most schools, gifted students are pulled out for a few hours or less each week and spend the rest of the time in their general education classroom (Borland, 2012). These students are then spending the largest portions of their school time in classrooms with heterogeneous groups, mixed abilities of students, and little differentiation of curriculum (Latz, Speirs Neumeister, Adams & Pierce, 2009). The problem that occurs from this system is that pull-out programs provide students with enrichment while in the gifted classroom, but gifted students are gifted all the time, so they still need challenging instruction while in their subject-area classrooms (Cohen, 1990). In addition, gifted education curriculum often does not even complement or go along with the general education curriculum that students are learning the rest of their time (Borland, 2012). Although the pull-out approach to teaching gifted does provide gifted students with a challenge, it does not provide students with consistent, challenging work throughout the school day and for the significant parts of students' learning.

After-school and Saturday enrichment programs are also common for gifted students. Many families want to provide their students with challenging opportunities and turn to extracurricular activities. Gifted students tend to need services not typically provided by the general education system (U.S. Department of Education), and outside-of-school programs are able to fill in the missing parts of talent development (Olszewski-Kubilius & Lee, 2004). These programs provide engaging and challenging curriculum for gifted students in addition to the regular school-day's work. However, despite benefits of these activities, students who complete

such programs are not any more able to pursue further educational opportunities inside the classroom because of their involvement (Olszweski-Kubilius, 2004).

Similarly, many organizations offer summer enrichment programs for gifted students. These programs provide the same type of enrichment as after-school and Saturday programs, but occur at schools, colleges, and other locations during the summer months when students do not attend school. Common summer programs are accelerated instruction, interdisciplinary courses, learning programs, mentorships and internships, study abroad programs, and contests or competitions (Olszewski-Kubilius & Lee, 2004). These programs tend to provide more success for older students and are geared towards students in the higher grades (Jen, Gentry, & Moon, 2017). University-based, summer residential programs, especially, are designed for secondary gifted learners (Jen et al., 2017). While these programs are great opportunities for students to be challenged, they do not satisfy students' needs in the classroom during the school year.

Another strategy for providing enrichment for gifted students is to have the student participate in an accelerated curriculum. Academic acceleration means that students participate in the normal curriculum but proceed through the material at a faster rate (Brigandi, Siegle, Weiner, Gubbins & Little, 2016). Acceleration can take many different forms depending on the student and can include skipping grades or even graduating early from school (Johnson, Parker & Farah, 2015). While this idea can have its benefits, acceleration does not meet all needs of students (Brigandi et al., 2016). Acceleration does help deal with the issue that gifted students often progress quickly through the general education curriculum or might even know it before being taught. However, when it comes to acceleration, the content, process for learning, and expectations do not change or become any more advanced for students who are capable of higher levels of thinking (Brigandi et al., 2016). Acceleration is able to push students to a class where

they do not already know the material but does not provide the enrichment that gifted students deserve.

Although each of these approaches has its merits and uses in gifted instruction, they cannot be relied upon as the primary deliverers of gifted education. These programs allow students to grow and excel, but do not maximize student opportunities for learning in the classroom, which good gifted instruction should do.

Challenges of Enrichment in the Classroom

Although many educators will recognize that the current practices for gifted support have flaws, these approaches are still used because incorporating gifted instruction into the general education classroom presents a number of issues. When teachers work to accommodate a variety of different levels of learners in their classrooms, they often face a struggle with classroom management. With the wide range of abilities of students in general education classrooms, accommodating for all levels of students can be challenging. Teachers need to be able to identify individual needs, evaluate progress, and provide continual challenges (Tirri & Laine, 2017). This can be very difficult for one teacher to do with a full class of students. In addition to preparing such materials, it seems nearly impossible for one teacher to be able to simultaneously teach varied levels of lessons to all students (Redenius & Skaar, 2017). When teachers attempt to meet the needs of such diverse groups, a common consequence is that a lack of challenging curriculum is presented for gifted learners (Gallagher, 1997).

Teachers also tend to be hesitant to incorporate gifted curriculum into their classrooms due to a lack of time and resources. Educating gifted students is a long and intensive process that requires special lessons, teachers with knowledge of teaching gifted students, and continuous

training throughout a student's education (Olszweski-Kubilius, 2004). In addition, gifted student support requires advanced materials and assessment tools, such as gifted screenings and formative assessments (Johnson et al., 2015). All of this time and resources are typically more than what most schools are willing to offer students (Olszweski-Kubilius, 2004). The increasing pressure over standardized testing has forced administrators to make difficult choices on how to allocate resources. In most cases, these choices do not benefit gifted programs or have gifted students in mind (Hodges, 2018). In fact, virtually no federal funds and very modest state and local funds are allotted for gifted education (Delise, 2018). There are also misconceptions within communities that because gifted students are smart, they are able to "make it on their own" and don't need the extra allocation of resources (Delise, 2018). Even if provided with appropriate resources, teachers must commit a substantial amount of time to advanced curriculum for gifted students. Each day, teachers spend much time working with their lowest and struggling students, which does not leave much time for gifted or advanced students (Tirri & Laine, 2017). In addition to finding time to deliver advanced instruction, teachers must balance time spent lesson planning. When teachers are expected to create lessons that address the needs of on-level students, below level students, and advanced students, the enrichment lesson tends to be the one that teachers spend the least amount of time and energy creating (Redenius & Skaar, 2017). Unfortunately, many teachers struggle with the thought of delivering gifted education in addition to education for the rest of their students, so gifted education tends to get ignored or cut completely (Delise, 2018).

With the nation's continued emphasis on standardized test scores, gifted students find their education pushed aside to focus on helping the students in the middle (Hodges, 2018).

The students “on the edges” tend to lose out on learning because their test scores are more certain than others’. Gifted students most likely score proficient, advanced, or otherwise satisfactory on standardized tests, regardless of what curriculum they receive, so billions of dollars and hours of intervention are given instead to the students who need it to raise their test scores (Delise, 2018). Teachers are put in positions where it is difficult to justify the concept of attending to individual learners’ needs because standardized testing requirements push everyone to the same level and focus on those who are struggling to reach that level (Hertberg-Davis, 2009). As the standardized testing culture develops, the way we “do school” focuses on the pressure to pass a standardized test as opposed to the concept of valuing individual student needs (Hertberg-Davis, 2009). Teachers are faced with so much pressure to help students pass standardized tests, that they can begin to focus on that instead of on ensuring that students are learning new concepts and material (Hodges, 2018). Specifically, high-stakes testing from No Child Left Behind forces drill-and-kill techniques, which leave no room for practices designed to meet students at their skill levels (Hertberg-Davis, 2009). This can cause negative affects for gifted students who tend to learn at a fast pace and become bored when instruction based on learning needs is traded for instruction to improve test scores (Delise, 2018).

Even if teachers were given opportunities to teach to their gifted students’ levels, many teachers are undertrained and unprepared to teach gifted education practices and feel unable to understand the learning and developmental needs of gifted students (Monks, 2014). Teachers also express concerns with their abilities to provide effective challenges for gifted students (Redenius & Skaar, 2017). Redenius and Skaar (2017) stated that while some teachers recognize the importance of challenging gifted learners, they are unsure how to and unable to incorporate the necessary challenges. In addition, teachers express beliefs and misconceptions about gifted

learners that do not help them provide appropriate challenges (Tirri & Laine, 2017). These teachers struggle to develop activities for gifted students (Redenius & Skaar, 2017). Public schools as a whole are also unprepared to support gifted students. Many schools fail to provide their teachers with enough training on how to identify and challenge gifted students (Redenius & Skaar, 2017). With a general focus on groups of students with disabilities, children living in poverty, and minority groups, the education system today does not help prepare teachers to teach gifted students (Delise, 2018). Although teachers are required to take courses on special education, these courses generally deal with students with disabilities, not gifted students (Cohen, 1990). Also, there is much less educational literature that informs about gifted and advanced students in comparison to literature that deals with struggling students (Redenius & Skaar, 2017). This could be due to an overall lack of knowledge about gifted students and their learning needs and well as a lack of exploration of evidence-based practices that successfully attend to gifted students in the general classroom (Tirri & Laine, 2017). Even for teachers who have been trained to teach gifted students, it is unrealistic to assume that these teachers can be the sole guides for gifted students' education in the classroom. (Hertberg-Davis, 2009). Many teachers reported that their primary sources of ideas for challenging gifted students were other teachers in the building (Redenius & Skaar, 2017). While this in itself is not an issue, it is important to realize that teachers need more support than just talking to one another. Just as other special education students require a team of teachers and support services, gifted students would benefit from a multitude of supporters. Gifted education tends to include problem-based learning, higher-order thinking, and a variety of different programming. Teachers must be provided with strategies to teach students in these ways (Gallagher, 1997). To set curriculum in meaningful ways for all learners, "teachers need a deep understanding of the scope and sequence, big ideas,

resources, and unanswered questions" of a subject (Hertberg-Davis, 2009, p. 252). As with any teaching, the more knowledge teachers have about methods and strategies, the more successful they will be in addressing the needs of their students (Gallagher, 1997).

Some teachers do attempt to provide appropriate leveled instruction to students, but struggle with the challenge of making enrichment seem like a positive addition. Many teachers feel as though the enrichment that they provide becomes monotonous and involves a lot of repeating the same skills over again (Redenius & Skaar, 2017). Not only is this boring for students, but they may begin to feel as though this extra work is a form of punishment (Redenius & Skaar, 2017). Teachers must work to make enrichment activities positive and meaningful. When students are given work that appears to have no meaning, they feel less motivated to work hard to complete it (Siegle & McCoach, 2018). Although providing enrichment is a great first step, without providing meaningful and appropriate enrichment, the purpose becomes lost.

Effective Strategies for Teaching Gifted Students

Some strategies do exist that have been proven to appropriately challenge gifted students in the general education classroom. Differentiation is by far the leading strategy used for teaching varied levels of students. Teachers in heterogeneous classrooms tend not to choose gifted students as the students that they feel need the most differentiation; however, differentiated teaching involves recognizing each student as an individual learner (Hertberg-Davis, 2009). By that philosophy, differentiation works well for gifted students who have individual talents and needs that cannot be met with a single gifted curriculum (Hertberg-Davis, 2009). Differentiated learning offers students opportunities for learning in greater depth and complexity, an adjusted pace, greater independence, as well as curricular and instructional modifications aimed at helping individual student needs (Hertberg-Davis, 2009). This

encourages students to learn at their personal pace and chose topics of interest to them (Delise, 2018). Borland (2012) argues that differentiation is the only way for gifted students to be sure to get appropriate challenge in a general education classroom with students of various academic levels. Differentiated curriculum does require more work by the teacher; however, as teachers become more comfortable with the process, the amount of time required to plan differentiated curriculum decreases (Hertberg-Davis, 2009 and Delise, 2018). In addition, spending the up-front time planning gifted curriculum will even out in the end because of less time spent dealing with students causing problems or keeping track of work as they finish early (Delise, 2018). Differentiated instruction allows students to continually receive enrichment in the regular classroom, as opposed to only sometimes getting enrichment in a pull-out program (Hertberg-Davis, 2009).

Research supports intentional grouping of gifted students, which can take place in various forms. One method of grouping that can benefit gifted students is grouping students by academic levels, which can be called cluster grouping, homogeneous grouping, or ability grouping. In the general classroom, cluster groups of students with similar academic levels have been found to have positive gains on gifted students' performance (Olszewski-Kubilius & Lee, 2004). In these types of groups, the academic level of activities can be raised to challenge the group (Redenius & Skaar, 2017). An added bonus is that when gifted students are grouped with others like them in ability or interest, it counters the social-emotional problems gifted students often face of feeling isolated or different from their peers (Cohen, 1990). In homogeneous groups, gifted students feel accepted, connected, and supported in their learning environment which can reinforce a positive outlook on school and learning for gifted students (Brigandi et al., 2018). Gifted students, when given the choice, tend to prefer homogenous groups over mixed ability

groups, usually for academic reasons (Tirri & Laine, 2017). When grouped with fellow gifted peers, students felt that they and their group members faced similar developmental tasks and had a lot in common (Jen, Gentry, & Moon, 2017). Students also reported in interviews conducted by Jen, Gentry, and Moon (2017) that they enjoyed discussions in small groups made up of students with similar academic levels with other gifted students of mixed age, ethnicity, and gender (Jen, Gentry, & Moon, 2017). In addition to accommodating student preference, ability grouping is a way to prevent boredom and manage academically challenging activities (Preckel et al., 2010). Preckel, Gotz, and Frenzel (2010) found that there is much empirical evidence to prove that students benefit academically from homogeneous grouping.

In contrast to grouping students by academic level, gifted students can also benefit by mixed ability, or heterogeneous groups. One form of heterogenous grouping is intentional groups of students called cooperative learning groups, where each student is given a role or purpose within the group. Cooperative learning groups made up of students with a range of academic levels require specific plans to be made to inform gifted students what is expected of them (Gallagher, 1997). Teachers can set guidelines and equip students with goals and skills so students can work together efficiently and successfully (Redenius & Skaar, 2017 and Gallagher, 1997). Some teachers group high and low students together to allow the gifted student to take on a teaching role and support the lower student. (Redenius & Skaar, 2017). Not all students will appreciate this type of grouping, but some students will become very strong with the content through practice teaching and explaining the work. In these cases, students are kept from being bored and class management situations are solved (Redenius & Skaar, 2017). Heterogeneous grouping requires thought and intentional partners but can be a valuable tool for teachers to use.

Gifted students can be challenged with project-based learning that incorporates more rigorous activities than would be expected of typical students (Redenius & Skaar, 2017). Due to the nature of projects and larger assignments, teachers can modify the requirements to differentiate for different student ability levels (Redenius & Skaar, 2017). Project learning often incorporates students' personal interest and authentic learning tasks which make these assignments especially appealing. Gifted students may become very engaged in such assignments (Siegle & McCoach, 2018). Brigandi et al. (2016) found that gifted students were more likely to find learning enjoyable, meaningful, and interesting when it aligned with their interests and identity, which project based learning has the ability to do. Siegle & McCoach (2018) also found that regardless of students' ability to do well in school, schoolwork must appear meaningful to students in order for students to do well. Project based learning, when used with authentic learning tasks, can be used to motivate and challenge gifted students.

Gifted learners are often familiar or comfortable with the general curriculum and benefit from advanced components of the curriculum that the rest of the class is learning. Gifted students tend to be able to process information more quickly and at a higher level than other students, which makes them capable of managing more advanced learning (Siegle & McCoach, 2018). By blending an accelerated pace with enrichment activities at an advanced level, teachers can effectively challenge gifted students (Brigandi et al., 2018). This strategy is so successful because it provides gifted students with education that matches the content with their academic and instructional needs (Borland, 2012). Redenius and Skaar (2017) explain that once gifted students learn the concepts being taught or since they may already have experience with the concepts, they can then work toward learning outcomes that extend beyond the typical level. Activities in this type of curriculum compacting can be presented in ways that challenge students

to think at a higher level (Redenius & Skaar, 2017). For example, teachers may choose to use Bloom's Taxonomy to ask questions that extend and stretch learning (Redenius & Skaar, 2017). Through advanced curriculum, teachers can continually provide students with appropriate challenges.

One important factor for teachers to incorporate into gifted instruction is to make a classroom environment where gifted learners feel supported and valued (Brigandi et al., 2018). When teachers create a classroom space where students are provided with difficult learning opportunities but also helped to navigate through that process, they are orienting students toward success (Brigandi et al., 2018). To assist in differentiated instruction and gifted education in the regular classroom, team teaching, or co-teaching, allows students to work on separate projects and still get teacher support (Gallagher, 1997). Not all schools have the resources or teachers available, but having multiple teachers working together in one classroom allows for a wider variety of options offered, which is very beneficial for gifted students (Gallagher, 1997). Multiple teachers teaching together allows classrooms to be places where teachers develop talent in students by finding pathways to high-level content through students' interests, which is how learning should ideally take place (Hertberg-Davis, 2009). Gifted students have both academic and social-emotional needs that require teacher support in order for them to succeed (Brigandi, 2018).

Methodology

In order to expand upon the information collected from educational literature, interviews were conducted. These interviews were conducted as a part of a qualitative study design. A qualitative study best fits this type of research because it focuses on gaining advice and information from teachers who have had experience working with gifted students in classrooms.

The interviews were conducted with 6 classroom and gifted teachers in various schools and elementary grade levels. The teachers were employed in schools in the state of Pennsylvania and worked with at least one gifted student. Teachers were asked to sign consent forms and their responses were recorded and referred to using pseudonyms to ensure confidentiality.

The interviews were conducted as structured, open-ended interviews in which the same set of pre-determined questions was asked to each candidate. This was to collect responses that could be compared to one another and from which conclusions could be drawn. Teachers were free to respond with as much or as little as they preferred. A few questions were asked to only the classroom teachers. They were questions such as: What (if anything) do you do to differentiate for advanced learners? Is it effective? What struggles do you face with challenging your gifted learners? and What support do you get from the school for your gifted learners? These questions were only given to classroom teachers because they were specific to a scenario in which a teacher has a class full of both gifted and non-gifted students. Similarly, a few questions were asked only to gifted teachers. These questions were: What kinds of projects/lessons do you do with your students? Are these things that are most successful in a gifted classroom or things that could be incorporated into the regular classroom? and What advice do you give or what do you do if students complain to you that they are not feeling challenged in the classroom? These questions were asked only to gifted teachers because they focus on the interactions between and the lessons taught by a gifted teacher. The remainder of the questions were given to both gifted and classroom teachers. These questions addressed topics such as areas that gifted students need challenge, freedom, and support, grouping of gifted students, resources used to support gifted learning, and classroom management ideas. Teachers

were also asked to share any other information they thought was important to know when working with gifted students.

This research aimed to address the research question: What are the most effective instructional strategies that can be used to challenge gifted students in the general education elementary school classroom? Themes that emerged from both educational literature and from the teacher interviews were examined to answer this question. The themes and strategies were then presented in the form of a website providing information on challenging gifted students.

Results

Results of Interviews

In response to the question "What do you do to differentiate for advanced learners?", classroom teachers explained that reading is the easiest subject to utilize differentiation techniques. They noted that in mostly all schools, students receive instructional text levels, which help to figure out where students' strengths are and what the appropriate resources might be for these students. Teacher A commented that she differentiates in most subjects through the use of stations (personal communication, April 2, 2019). She further explained that her reading, math, and writing lessons are done in stations based on levels so that she can change the assignments based on student abilities. Teachers did also note that differentiation is difficult but effective (Teacher A, personal communication, April 2, 2019).

When asked the question "What struggles do you face with challenging your gifted learners?", classroom teachers expressed many concerns. These concerns included lack of time, lack of help, and struggles with consistency. Teachers also explained some characteristics of gifted learners that make providing advanced instruction difficult. For example, gifted students

sometimes perceive advanced instruction as more work instead of more opportunities to learn. They also tend to be fast finishers and experts which make their need for advanced instruction pretty demanding (Teacher B, personal communication, April 3, 2019).

Classroom teachers were asked about the support they get for their gifted learners. Teachers explained that their schools have gifted support teachers to work with gifted students. Teacher A described that the gifted teacher pulls students out every few days according to their cycle rotation (personal communication, April 2, 2019) and Teacher B said that her school's gifted teacher pulls students out on a weekly basis (personal communication, April 3, 2019). These teachers also shared that the gifted teachers are willing to help out and provide extra activities for students when approached.

Gifted teachers were asked to share what projects or lessons they did with their students and if these lessons would work in a general classroom or just a gifted classroom. Nearly all of the teachers recommended projects and activities that incorporated higher level thinking skills. Multiple teachers recommended project-based learning activities (Teacher D, personal communication, April 5, 2019, Teacher E, personal communication, April 3, 2019, and Teacher F, personal communication, April 4, 2019). Teachers also recommended authentic lessons and inquiry-based learning to give activities meaning and purpose. These lessons can easily incorporate students' interests and background knowledge (Teacher C, personal communication, April 3, 2019). Finally, teachers suggested challenge problems that require multiple steps in order to be solved or completed. Nearly all the activities suggested were lessons teachers thought could be incorporated into the general education classroom.

In response to the question "What advice do you give or what do you do if students complain to you that they are not feeling challenged in the classroom?", gifted teachers

suggested various solutions. Some teachers preferred to have a conversation with students about why they might not be feeling challenged. Other teachers talked about how that leads them to consider how to add more challenge into students' curriculum. Gifted teachers commented that they sometimes connect with the classroom teacher to offer help with enrichment or differentiation materials (Teacher D, personal communication, April 5, 2019 and Teacher F, personal communication, April 4, 2019).

In response to the question "Where do you notice gifted students needing the most challenge?", teachers said the math or reading content areas. Students who are advanced in math need constant support and enrichment because of the style of the skills based math curriculum, but in reading, students can just read books at a higher level (Teacher D, personal communication, April 5, 2019). Teacher C recommends that gifted students would do well to be challenged with the freedom to think for themselves and choose what to write or what books to read (personal communication, April 3, 2019). Also, both gifted and classroom teachers referred to the emotional needs of students. Teachers suggested that gifted students would benefit from activities that help them build work ethic, problem solving skills, and growth mindset. They explained that because gifted students have a tendency to understand material quickly and without problems, they can struggle when faced with a challenge (Teacher A, personal communication, April 2, 2019 and Teacher B, personal communication, April 3, 2019).

When asked what kind of partnering or grouping teachers used, they responded with mixed answers. Almost all teachers explained that they do not have one preferred method of grouping students and tend to mix up partners and groups often. Teacher D explained that grouping gifted students can be difficult. When put in groups with lower students, gifted students become frustrated that they are doing most of the work, but when put in groups with advanced

peers, they are more likely to struggle to find compromises or get along (personal communication, April 5, 2019). One teacher also cited that cluster grouping makes managing a class with a few gifted students easier for the teacher (Teacher F, personal communication, April 4, 2019).

Teachers were asked “In what ways do you think gifted students need more freedom than other students?”. They responded with answers referring to students’ planning and choosing the right topics for assignments. In this way, students can be sure they are participating in meaningful, relevant assignments. Teacher C points out that gifted students tend to be very passionate when it comes to their likes and dislikes, so student choice in activities is a way for students to engage these interests (personal communication, April 3, 2019).

To answer the question, “In what ways do you think gifted students need more support?”, teachers again referenced social-emotional areas. They supported providing gifted students with strategies and practice to help them cope and work through situations where students might be feeling confused. Teachers also recommended organizational strategies and structure to enrichment activities (Teacher B, personal communication, April 3, 2019 and Teacher D, personal communication, April 5, 2019).

When asked what resources teachers use to support gifted students, teachers had many answers and ideas. For curricula, teachers recommended the enrichment components of their ELA and Math curricula as well as activities found on Pinterest or Teachers Pay Teachers. Many teachers use predesigned STEM challenges and activities, and some commented on using technology such as iPad apps. The teachers also volunteered to whom they go to get information and ideas. Talking with their teams of teachers, STEM or innovation teachers, and upper grade teachers were all suggestions they offered. One gifted teacher explained that the local IU has a

network for the county's gifted teachers, and that they meet a few times each year to trade ideas and resources (Teacher D, personal communication, April 5, 2019). Finally, teachers recommended reading research and literature on gifted students to gain insight and information.

Teachers were asked about the role of technology in education for gifted students. With schools gaining more technology resources and more schools becoming one-to-one or one-to-two, technology seemed present in almost every classroom. Teachers commented how having students use their iPads has made it easier for teachers to differentiate instruction (Teacher B, personal communication, April 3, 2019 and Teacher C, personal communication, April 3, 2019). Technology is also used for research and reading that cannot be found in the classroom or school library. One teacher uses technology to provide additional enrichment for students when they are not pulled out to their gifted classroom (Teacher F, personal communication, April 4, 2019).

To answer the question "How do you create enrichment that doesn't just seem like more work for students?", teachers referred to characteristics of what makes gifted education so meaningful. They especially drew on the project based and authentic nature of gifted education. When students are working on projects that relate to their interests, they are naturally engaged and don't feel as though they are doing extra work. Teacher F commented that it is important that assignments are meaningful and clearly present a challenge that is not just extra work (personal communication, April 4, 2019). For example, teachers can have students delve deeper into the content or become experts on what they are learning instead of just repeating more practice. Providing students with choices on what they would like to learn can also keep students engaged.

Discussion of Results

Although these interviews and research were conducted with a variety of gifted and classroom teachers from many different grades and schools, some common themes among all teachers of gifted students arose. These themes were compiled, along with strategies from literature, to create a website about gifted education. The website is directed toward classroom teachers who are looking for information on how to challenge gifted students in the general education classroom and highlights some of the major ideas for gifted education. Links to the website are listed in Appendix C.

In this research, teachers continually described the benefits of project based and authentic learning tasks. These types of tasks embody the concepts of higher-level thinking and creativity that characterizes gifted students. They also incorporate multiple skills and tasks and allow students to engage in an extensive process to accomplish a task. In terms of enrichment or extension activities, finding ways for students to think critically or "delve deeper" into a topic also seemed to be popular ideas.

Teachers admitted that differentiation can be difficult but is extremely effective when applied to a classroom. Many teachers recommended leveled groups or centers to teach multiple levels of a content or topic. They also discussed the benefits of grouping students in mixed ability groups to help students find balance and learn by teaching others.

Teachers also spoke of the social and emotional needs of gifted students. This is something for teachers to carefully consider when choosing groups for gifted students. Social and emotional needs can also guide enrichment ideas for students; when students are challenged

or faced with a problem they cannot instantly solve, they work on building problem solving skills and resiliency.

Finally, while there is not an overwhelming amount of literature or research on gifted education, there is still plenty available. Teachers invested in gifted education can gain knowledge and ideas by talking with other teachers, reading current research, or encouraging schools to incorporate gifted education into professional development. Simply by being dedicated to presenting a challenging education to each and every student, teachers can work to give their gifted students an appropriate education.

Conclusion

Final Conclusions

Much of the information shared by teachers in the interviews aligned with what was found in review of gifted education literature. This is both promising and troubling- promising because it means that researchers are aware of problems that teachers are experiencing every day in their classrooms, but troubling because it means that the issues teachers are facing with gifted education are consistent throughout our education system.

Many common challenges were noted regarding the implementation of gifted education into the general education classroom. These challenges include struggles with classroom management, a lack of time and resources, pressure to improve standardized test scores instead of to teach students, a lack of teacher training and professional development regarding gifted students and struggles to find enrichment that is worthwhile for students and does not seem just like extra work.

While these challenges are found to be completely valid and concerning, strategies exist to teach gifted education in ways that can overcome or avoid these issues. For example, teachers can consider careful grouping of students and differentiation within a curriculum. Teachers can also incorporate authentic, project-based learning tasks that allow students to think on a deeper level and remain engaged in activities. By participating in enrichment that goes deeper into a topic, students can continue to learn and grow. Finally, by presenting challenges to gifted students, teachers can help students improve their problem-solving skills and increase their motivation in school.

Recommendations for Future Research

Some limitations exist on this study. The sample size of teachers interviewed could have been larger. Only six teachers were interviewed, and only two of which were general education teachers. In addition, there is a chance that this sample could not have been representative of the entire population of teachers. Although these teachers were selected from various schools and various positions, they may have common traits or characteristics that would skew the data collected from their responses. Finally, the interview questions may not have been completely comprehensive of gifted education challenges and strategies.

To continue this research, it is recommended that more research be done on successful strategies for challenging gifted students in the general education classroom. With a larger sample size of teachers, more advice and strategies could be collected and refined to determine what would be most successful for students. Knowledge of gifted students is consistently changing and with each new development, more can be known and done to improve gifted education.

Another recommendation is to begin case studies observing classrooms with gifted students. While the information gained from literature and interviews spans many different research projects and real classrooms, it would be even more informative to study classrooms with gifted students. The strategies presented in this research could be tested in the classroom to determine their true effectiveness. In addition, interviews with gifted students would be a way to speak to gifted students about their educations.

Other recommendations for similar research on gifted education in the general education classroom are to expand upon some of the topics discussed in this research. It would be beneficial to study professional development for current teachers as it relates to gifted education. In this way, suggestions could be made to improve professional development and teacher training on gifted education. Also, it is recommended to explore the use of technology in gifted education. Teachers suggested that technology is a huge help to differentiation and gifted education, but not all schools or classes use technology to challenge gifted students. Research could be conducted to explore how technology can help provide meaningful challenges to gifted students.

References

Adams-Byers, J., Whitseel, S. S. & Moon, S. (2004). Gifted students' perceptions of the academic and social/emotional effects of homogeneous and heterogeneous grouping. *Gifted Child Quarterly, 48*(1), 7-20. Retrieved from http://eds.b.ebscohost.com/eds/detail/detail?vid=13&sid=49c1dc64-0778-45d6-8c92-680058c6d0ec%40sessionmgr101&bdata=JnNpdGU9ZWRzLWxpdmU%3d#AN=12364763&db=edb

Brigandi, C. B., Weiner, J. M., Siegle, D., Gubbins, E. J., & Little, C. A. (2018). Environmental perceptions of gifted secondary school students engaged in an evidence-based enrichment practice. *Gifted Child Quarterly, 62(*3), 289-305. Retrieved from http://search.ebscohost.com.ezproxy.etown.edu/login.aspx?direct=true&db=a9h&AN=130055748&site=ehost-live

Brigandi, C. B., Siegle, D., Weiner, J. M., Gubbins, E. J., & Little, C. A. (2016). Gifted secondary school students: The perceived relationship between enrichment and goal valuation. *Journal for the Education of the Gifted, 39*(4), 263-287. Retrieved from http://search.ebscohost.com.ezproxy.etown.edu/login.aspx?direct=true&db=eric&AN=EJ1118926&site=ehost-live

Borland, J. H. (2012). Problematizing gifted education, part III: Gifted education without gifted programs. The Creativity Post. Retrieved from http://www.creativitypost.com/education/problematizing_gifted_education_part_iii_gifted_education_without_gift3

Chapman, C. (2009). A smoother acceleration: Addressing transition issues that arise for accelerated gifted students. *Science Teacher, 76*(3), 42-45. Retrieved from

http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=8&sid=49c1dc64-0778-45d6-8c92-680058c6d0ec%40sessionmgr101

Cohen, L. M. (1990). Teaching gifted kindergarten and primary children in the regular classroom: Meeting the mandate. *OSSC Bulletin, 33*, 1-128. Retrieved from http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED319125

Delise, J.R. (2018). *Doing poorly on purpose: Strategies to reverse underachievement and respect student dignity.* Alexandria, VA: ASCD

Gallagher, J. (1997). Challenge or boredom? Gifted students' views on their schooling. *Roeper Review, 19*(3), 132-136. Retrieved from http://web.a.ebscohost.com/ehost/detail/detail?vid=1&sid=5c5fdcde-c640-45a8-8a6b-5ca78e51a4da%40sessionmgr4007&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=EJ549020&db=eric

Hertberg-Davis, H. (2009). Myth 7: Differentiation in the regular classroom is equivalent to gifted programs and is sufficient: Classroom teachers have the time, the skill, and the will to differentiate adequately. *Gifted Child Quarterly*, *53*(4), 251-253. doi: 10.1177/0016986209346927

Hodges, J. (2018). Assessing the influence of No Child Left Behind on gifted education funding in Texas: A descriptive study. *Journal of Advanced Academics*, *29*(4), 321-342. Retrieved from http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=9&sid=a7060a59-5c3a-47d9-9368-8ec2448daa68%40sdc-v-sessmgr02

Jen, E., Gentry, M., & Moon, S.M. (2017). High-ability students' *perspectives* on an affective curriculum in a diverse, university-based summer residential enrichment program. *Gifted Child Quarterly, 61*(4). 328-342. doi: 10.1177/0016986217722839

Johnson, S., Parker, S. & Farah, Y. (2015). Providing services for students with gifts and talents within a response-to-intervention framework. *Teaching Exceptional Children, 47*(4), 226-233. Retrieved from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=11&sid=49c1dc64-0778-45d6-8c92-680058c6d0ec%40sessionmgr101

Latz, A. O., Speirs Neumeister, K. L., Adams, C. M. & Pierce, R. L. (2009). Peer coaching to improve classroom differentiation: Perspectives form Project CLUE. *Roeper Review, 31*(1), 27-39. Retrieved from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=2&sid=a3d5dd78-4cf1-4611-857f-de0abf4e5669%40sessionmgr101

Lee, S. Y., Olszewski-Kubilius, P., Makel, M. C., & Putallaz, M. (2015). Gifted students' perceptions of an accelerated summer program and social support. *Gifted Child Quarterly, 59*(4), 265-282. Retrieved from https://journals-sagepub-com.ezproxy.etown.edu/doi/pdf/10.1177/0016986215599205

Little, C.A. (2012). Curriculum as motivation for gifted students. *Psychology in the Schools, 49*(7), 695-705. Retrieved from http://search.ebscohost.com.ezproxy.etown.edu/login.aspx?direct=true&db=a9h&AN=77604912&site=ehost-live

Monks, F. J. (2014). No child left behind and the impact of Kurt Heller's work. *Journal for the Education of the Young Scientist & Giftedness, 2*(1), 33-39. Retrieved from

http://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=102145802&stie=ehost-live

Olszewski-Kubilius, P., & Lee, S. (2004). Parent perceptions of the effects of the Saturday enrichment program on gifted students' talent development. *Roeper Review, 26*(3), 156-165. Retrieved from http://web.b.ebscohost.com/ehost/detail/detail?vid=3&sid=483a35fe-ae64-4c28-9f4e-010d7fcf0fb2%40sessionmgr104&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=12902667&db=a9h

Preckel, F., Gotz, T., & Frenzel, A. (2010). Ability grouping of gifted students: Effects on academic self-concept and boredom. *British Journal of Educational Psychology, 83*(3), 451-472. Retrieved from http://search.ebscohost.com.ezproxy.etown.edu/login.aspx?direct=true&db=psyh&AN=2010-16268-008&site=ehost-live

Redenius, J. & Skaar, N. (2017). Challenges of meeting the needs of gifted students within an RTI system. *Journal of Teacher Action Research, 4*(1), 20-42. Retrieved from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=2&sid=49c1dc64-0778-45d6-8c92-680058c6d0ec%40sessionmgr101

Ritchotte, J.A., & Graefe, A.K. (2017). An alternate path: The experience of high-potential individuals who left school. *Gifted Child Quarterly, 61*(4), 275-289. doi: 10.1177/0016986217722615

Siegle, D., & McCoach, B. D. (2018). Underachievement and the Gifted Child. In S. I. Pfieffer, E. Shaunessy-Dedrick, & M. Foley-Nicpon (Eds.), *APA handbook of giftedness and talent* (pp. 559-573). Washington, DC: American Psychology Association.

Tirri, K. & Laine, S. (2017). Ethical challenges in inclusive education: The case of gifted students. In C. Forline & A. Gajewski (Eds.) *Ethics, Equity, and Inclusive Education* (pp. 239-257). Emerald Publishing Limited.

U.S. Department of Education. *Title IX – General provisions* (Publication No. 20 U.S.C. 7801 et seq.)

Appendix A: Interview Questions for Classroom Teachers

Please answer these questions with as much or as little detail as you would like. Thank you so much for participating in this study!

Interview Questions for Classroom Teachers:

1. What (if anything) do you do to differentiate for advanced learners? Is it effective?

2. What struggles do you face with challenging your gifted learners?

3. What support do you get from the school for your gifted learners?

4. Where do you notice gifted students need the most challenge?

5. What kind of partnering/grouping do you find works best for gifted students?

6. In what ways do you think gifted students need more freedom than other students?

7. In what ways do you think gifted students need more support?

8. What resources do you use to support gifted students?

9. How does technology play a role in what you do for gifted students?

10. How do you create enrichment that doesn't just seem like more work for students?
11. Is there anything else you wish to share about gifted learners?

Appendix B: Interview Questions for Gifted Teachers

Please answer these questions with as much or as little detail as you would like. Thank you so much for participating in this study!

Interview Questions for Gifted Teachers:

1. What kinds of projects/lessons do you do with your students? Are these things that are most successful in a gifted classroom or things that could be incorporated into the regular classroom?

2. What advice do you give or what do you do if students complain to you that they are not feeling challenged in the classroom?

3. Where do you notice gifted students need the most challenge?

4. What kind of partnering/grouping do you find works best for gifted students?

5. In what ways do you think gifted students need more freedom than other students?

6. In what ways do you think gifted students need more support?

7. What resources do you use to support gifted students?

8. How does technology play a role in what you do for gifted students?

9. How do you create enrichment that doesn't just seem like more work for students?

10. Is there anything else you wish to share about gifted learners?

Appendix C: Links to Website

Link to website: https://kelzygirl.wixsite.com/gifted

QR code to website: